

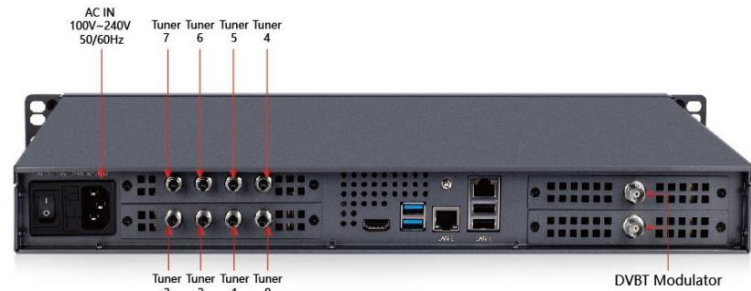
# TBS8110 All-in-one DVB-T Modulator Server User Guide

## All in One 8 Channel DVB-T Modulator Server

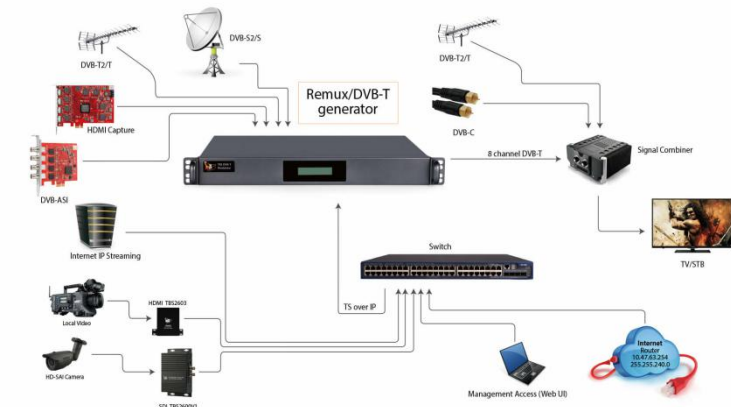
### Overview:

TBS8110 DVB-T modulator server is TBS latest product. It works as a DVB-T signal generator and supports 8 channel DVB-T transmission. Based on the multiplex platform, the server is able to broadcast in DVB-T using TS stream and also from IP input, it designed to support most broadcast industry standard forms, such as DVB-S2/S standard, DVB-ASI input via PCI-e and also MPEG from HDMI/SDI encoder over IP input.

Based on the powerful AMD® Embedded G-Series SoC, TBS8110 supports to install 2 TBS tuner cards inside, up to 8~16 TV tuners with different DVB standards, and to meet customers' various requirements, this device is also equipped with 128 IP input and 8 MPTS output over UDP and RTP. With "Remux" technology, you can easily select popular channels from input streams, then multiplexed to a new TS stream to 8 RF output.



TBS DVB-T modulator server is the perfect solution for Digital Signage, Private Circuit, STB Testing, and Laboratory Applications. It also provides a very cost-effective solution to transmodulation system and IPTV systems.



<b>Features:</b>
RF modulation (terrestrial digital) output option
8~16 TV tuner with different broadcast standard (DVB-S2/S/C, ISDB-T, ATSC, DVB-ASI)
8 channel DVB-T transmission
Managed through web UI
Multiplex DVB-S/S2, ISDB-T, ATSC, DVB-ASI and IP inputs
Integrated modulating and multiplexing functions

<b>Applications:</b>
DVB-T signal generator
Video broadcast/distribution
IPTV system

<b>Specification:</b>	
Size	1U
CPU	AMD® Embedded G-Series SoC (Quad Core, 2GHz)
RAM	4GB DDR3 1333
Graphics	Integrated AMD Radeon™ HD
Ethernet	2x LAN Gbit / 100 Mbit / 10 Mbit
SSD	30G mSATA SSD
Interface	4 x PCI-E; 2 x USB 2.0 2 x USB 3.0
Input	8~16 tuner with different broadcast standard 128 IP input over UDP and RTP, RJ45, 1000M/100M Unicast/Multicast
Output	8*RF COFDM DVB-T out (4 carriers combined output)
Remote management	web NMS
DVB-T	
Frequency range	50~950 MHz
Channel bandwidth	6, 7, 8 MHz
FFT mode	2K, 8K
FEC	64QAM/16QAM/QPSK
Code rate	1/2, 2/3, 3/4, 5/6, 7/8
Guard Interval	1/4, 1/8, 1/16, 1/32
Carrier Suppression	> 50dB
MER	> 40dB
Spectrum Shoulders	55 dB for perfect
Channel band width	variable channel band width from 2 MHz to 8 MHz

## WEB UI Operating Instructions

1. Check IP address on the display screen of your TBS8110 DVB-T modulator server, and input the IP address on your browser to visit TBS8110's WEB operate interface. For example: 192.168.8.66 account: root password: root.

192.168.8.66/network-settings.html



# TBS DVB-T Modulator

## Network Settings

## Network Settings

### Input Settings

Remux

Update

About

LAN1 Settings  LAN2 Settings

DHCP  STATIC

IP Address 192.168.8.66

Subnet Mask 255.255.255.0

GateWay 192.168.8.1

DNS Server 202.96.134.133

Save

2. You can create 8 IP streams and scan channels via 8 different TV Tuner transponders. Here comes the demo of Channel0 and Channel7.

## Network Settings

## Input Channels Settings

## Input Settings

Remux

Update

About

Input Channels

Channel0

Channel1

Channel2

Channel3

Channel4

Channel5

Channel6

Channel7

URL(udp/rtp): udp://192.168.8.66:1234

Scan Channels

3. Kindly check channels' list scanning from Channel0 and Channel7. You can choose any required channel and then live streaming them by ticking "✓" and clicking "Streaming & Save" button.

URL(udp/rtp):

JSBC International	<input type="text" value="1009"/>	<input type="checkbox"/>
Hunan TV International	<input type="text" value="1010"/>	<input type="checkbox"/>
Fujian Straits TV	<input type="text" value="1011"/>	<input type="checkbox"/>
Xiamen Star TV	<input type="text" value="1012"/>	<input type="checkbox"/>
TVS	<input type="text" value="1013"/>	<input type="checkbox"/>
Shenzhen International	<input type="text" value="1014"/>	<input type="checkbox"/>
Tianjin World	<input type="text" value="1015"/>	<input type="checkbox"/>
Chongqing TV World	<input type="text" value="1016"/>	<input type="checkbox"/>
Taishan TV	<input type="text" value="1017"/>	<input type="checkbox"/>
China Yellow River Channel	<input type="text" value="1018"/>	<input type="checkbox"/>
Henan International	<input type="text" value="1019"/>	<input type="checkbox"/>
Anhui International	<input type="text" value="1020"/>	<input checked="" type="checkbox"/>
Zhejiang International	<input type="text" value="1021"/>	<input checked="" type="checkbox"/>
Yunnan International	<input type="text" value="1022"/>	<input checked="" type="checkbox"/>
Sichuan International	<input type="text" value="1023"/>	<input checked="" type="checkbox"/>

Streaming & Save

### Input Channels Settings

- Input Channels
  - Channel0
  - Channel1
  - Channel2
  - Channel3
  - Channel4
  - Channel5
  - Channel6
  - Channel7**

URL(udp/rtp):

Program List	OutputPort	Enable
T12	<input type="text" value="8001"/>	<input checked="" type="checkbox"/>

Streaming & Save

SendAllTS&Save

4. With powerful "Remux" technology, you can flexibly choose any required live channels from Channel0 to Channel7 and then send to one or multiple TBS6024 DVB-T modulator transmitters from dvbmod0 to dvbmo7. As shown, we select all live channels from Channel0 TV transponder and send to DVB-T modulator transmitter TBS6024 dvbmod0, finally multiplex to a new TS stream to DVB-T RF output.

### Remux Settings

**Input Channels**

- Channel0
- Channel1
- Channel2
- Channel3
- Channel4
- Channel5
- Channel6
- Channel7

**Living Channels**

- Anhui International
- Zhejiang International
- Yunnan International
- Sichuan International

Add all

Add selected

Delete selected

Delete all

**Selected Channels**

- Anhui International
- Zhejiang International
- Yunnan International
- Sichuan International

Input data(mbps): 0.00

calc input data

**Octa Transmitter**

- TBS 6024 dvbmod 0
- TBS 6024 dvbmod 1
- TBS 6024 dvbmod 2
- TBS 6024 dvbmod 3
- TBS 6024 dvbmod 4
- TBS 6024 dvbmod 5
- TBS 6024 dvbmod 6
- TBS 6024 dvbmod 7

Frequency(KHz): 474000

Bandwidth: 8MHz

Auto set output data:

Constellation: QAM64

Guard interval: 1/32

Code rate: 7/8

Output Data rate(mbps): 31.67

Transmission mode: 8k

RF Range(-35~0): -10

Start dvbmod

5. Multiplex live TV channels from Channel0 and Channel7 and transmit to TBS6024 dvbmod 0. Set all DVB-T modulating parameters and then start dvbmod as requested.

### Remux Settings

**Input Channels**

- Channel0
- Channel1
- Channel2
- Channel3
- Channel4
- Channel5
- Channel6
- Channel7

**Living Channels**

- T12

Add all

Add selected

Delete selected

Delete all

**Selected Channels**

- Anhui International
- Zhejiang International
- Yunnan International
- Sichuan International
- T12

Input data(mbps): 0.00

calc input data

**Octa Transmitter**

- TBS 6024 dvbmod 0
- TBS 6024 dvbmod 1
- TBS 6024 dvbmod 2
- TBS 6024 dvbmod 3
- TBS 6024 dvbmod 4
- TBS 6024 dvbmod 5
- TBS 6024 dvbmod 6
- TBS 6024 dvbmod 7

Frequency(KHz): 474000

Bandwidth: 8MHz

Auto set output data:

Constellation: QAM64

Guard interval: 1/32

Code rate: 7/8

Output Data rate(mbps): 31.67

Transmission mode: 8k

RF Range(-35~0): -10

Start dvbmod